Department of Energy Resources
100 Cambridge Street
Suite 1020
Boston, MA 02114

February 12, 2011

Dear Colleagues,

Thank you for the opportunity to comment on your white paper, "An MPG Rating for Commercial Buildings: Establishing a Building Energy Asset Labeling Program in Massachusetts".

The paper is an excellent investigation into the issues concerning building energy labeling and proposes an innovative and ambitious pilot for structuring a Massachusetts-based program (with possible later application to a national program). I will provide comment on the various sections of the white paper and end with general comments.

The value of an energy asset rating is apparent for anyone who has used Energy Star Portfolio Manager to get an operational rating for buildings. I have encountered several instances where buildings have been at or near Energy Star rating and yet to anyone familiar with the actual performance of the building it's clear that vast improvements can be made. That said, it still seems important to include an operational rating as it can provide building managers with important information on energy use and trends.

## Section II: The Asset Rating

### 2.1 Rating Scale

The Team's recommendation to adopt a technical scale over a statistical scale makes sense if the Team chooses to use the ASHRAE or similar operational rating system, and not ESPM. The other stated purpose of the technical scale is to promote zero net energy buildings. As I discuss at the end of my comments, I initially favored keeping ESPM and felt that other policies measures can be taken to promote zero net energy buildings, but have grudgingly changed my mind. I agree with the Team's recommendation to use site energy as the performance metric and supplement it with a GHG metric.

### 2.2 The Label

Establishing an easily understood label is crucial for the success of the initiative. While the Team has done a good job of laying out the pros and cons of various options, it is still not clear how the label will incorporate the asset and operational ratings as well as the site EUI and GHG metric and still be clear and concise. The advantage of the MPG and ESPM ratings is that they have one number that is immediately understandable. Perhaps there might be a way of combining both the asset and operational data into one rating, or would that defeat the purpose?

2.3 Assessment Process

I agree with the Team's recommendations regarding pre and post-retrofit assessments that include a BEERR and is tied in with utility incentives and financing programs. I also agree with the Team's recommendations regarding the importance of quality assurance including assessor training and certification, standardized asset modeling and verification of efficiency measures. I wonder if there also might be a need for 3rd party audits of the assessments and/or ratings since the market value of building inventory is at stake. Cost control is another major component of the initiative and one that I will discuss more at the end.

**Section III: Proposed Pilot Implementation Strategy**

3.1 Program Participation

All of the recommendations in this section make a lot of sense.

3.2 Integration with Operational Ratings

I will discuss my concerns with alternative operational ratings system at the end.

3.3 Cost Management

I will discuss my concerns with cost management at the end.

3.4 Program Management

All of the recommendations in this section make a lot of sense.

3.5 Evaluation, Measurement and Verification

EM&V will be crucial during the pilot phase of this initiative in terms of determining how well it is working and how to tweak the program for later roll-out. I will discuss some of the identified evaluation questions in more detail at the end. As stated previously, consideration of a 3rd party audit program should be considered at least initially to confirm the validity of the assessments.

3.6 Outreach Strategy

Initial reaction from the commercial real estate sector in Massachusetts to the building-labeling program (NAIOP and Greater Boston Real Estate Board) has not been positive. While the Building Owners and Managers Association (BOMA) has traditionally been more receptive to energy efficiency issues, it's unclear whether they can be persuaded to support this initiative. I don't know how much outreach has been done to these groups or to some of their more progressive constituents (e.g. CB Richard Ellis), but it would be important to have them on your side. Most of the opposition to the initiative will probably come from owners of older, poorly

maintained and less efficient buildings. Messaging and incentives should be targeted to this sector to point out the advantages of participation (increased market value).

**Section IV: Future Program Framework**

I agree with all of the recommendations in this section.

**Conclusion**

I am very impressed with the work of the Team and commend you for a very thought-provoking and innovative approach to addressing energy efficiency in buildings.

My main concerns with the recommendations are about the potential cost of the program and getting sufficient buy-in from the public and commercial real estate sector.

My first inclination while reviewing the White Paper was against the proposal for an alternative to ESPM, primarily for market recognition and cost reasons. Portfolio Manager is fairly well known in the commercial real estate realm (BOMA includes it in trainings on energy efficiency and it is required in certain LEED certifications). Introducing an alternative to ESPM may seem like an added cost to building owners who have already pursued an Energy Star rating. That said, I certainly understand the advantages of an operational assessment based on a technical scale that includes net-zero energy use on the scale. It also seems that the Team is willing to include ESPM along with the other building assessments if the building owner wants it.

Which brings me to the cost issue. The program is calling for pre- and post-retrofit assessments and retrofits that will be paid for via utility incentive programs, innovative large-scale performance contracts (e.g. Cambridge Energy Alliance), and perhaps federal funds. I assume the utility incentives will come in part from RGGI funds and in part from passing along costs to the utility investors. The scale of the added costs to investors could raise significant opposition to the program. These costs as well as others (what is the estimated average cost of the pre-and post-retrofit assessments, how will costs for the program be covered in communities with municipally owned utilities) must be addressed.

Another question is what is the cost share to the building owner. In addition to the cost of any potential disruption caused by doing the assessments, what will the average cost be to the building owners? Is there projected to be any significant cost difference in assessing different types of buildings? If so, perhaps a cost-share program (like the mandatory participation provision under national health coverage) could be initiated, whereby the "healthier" buildings help defray the cost of the "sicker" buildings?
Other cost issues that come to mind are what sort of incentives might be offered to entice particularly reluctant building owners such as leased buildings vs owned? Perhaps expedited permitting or even tax breaks?

In addition to all the potential costs of the program, there will presumably be many benefits, not the least will be lower greenhouse gas emissions and ultimately lower energy costs for building

owners. To obtain maximum buy-in from building owners and the public, the benefits of the program need to be elaborated.

Finally, in section 3.5 of the White Paper you ask several important questions to evaluate the success of the program, including "has the asset rating and labeling program resulted in greater or broader uptake of energy efficiency measures?" I wonder if this question has been studied in Europe and Australia where similar labeling programs have been in existence for several years? How effective have these programs (especially ones that have incorporated both asset and operational ratings) been in actually changing purchase valuation behavior or in encouraging building owners and operators to actually improve the energy efficiency of their buildings. I don't know if these studies have been done, but it seems an important question to answer before engaging in an expensive initiative.

A related question is how effective are utility-based incentive programs for energy efficiency, especially more aggressive programs such as the Cambridge Energy Alliance and the similar program in Boston? Is there significant participation in these programs, and if not, why? To those of us familiar with the rationale of energy efficiency issues it seems like a "no brainer"- especially with the generous federal, state and utility incentives available, yet why is it so difficult to get building owners to participate? The team's assumption is that giving more building performance information to owners, buyers and the market will make the difference. I certainly hope you are right.